State Revolving Fund Loan Programs
Drinking Water, Wastewater, Nonpoint Source

PRELIMINARY DECISION OF CATEGORICAL EXCLUSION

TO ALL INTERESTED CITIZENS, ORGANIZATIONS AND GOVERNMENT AGENCIES:

CITY OF FORT WAYNE
Preliminary Engineering Report 2011-1
Ultra-Violet Disinfection and Reservoir Improvements; Water Main Replacement Projects; West Side Pump Station Improvements; Northwest Pump Stations Improvements; and Planning and Design Engineering Services of Future Water Main Replacement Projects
SRF # DW 11 03 02 02

Date: September 24, 2011

Pursuant to IC 4-4-11, the State Revolving Fund (SRF) Loan Program has determined that the project described here and in the Fort Wayne Preliminary Engineering Report 2011-1 will have no substantial negative environmental impact. Therefore, the SRF is issuing a preliminary decision of Categorical Exclusion from the requirements of substantive environmental review.

How were environmental issues considered?

The National Environmental Policy Act requires agencies disbursing Federal funds to include environmental factors in the decision making process. A summary of the project is attached for review. The SRF's preliminary review has found that the proposed project does not require the preparation of either an Environmental Assessment or an Environmental Impact Statement.

Why is additional environmental review not required?

Our environmental review has concluded that the proposed action will not produce significant environmental impacts.

How do I submit comments?

Comments can be submitted to:

Mr. Max Henschen, Senior Environmental Manager
SRF Programs
317-232-8623; mhensche at ifa.in.gov

CATEGORICAL EXCLUSION

I. PROJECT IDENTIFICATION

Project Name and Address:	**Preliminary Engineering Report 2011-1, Water Utility Improvements: Ultra Violet Disinfection and Reservoir Improvements; Water Main Replacement Projects; West Side Pump Station Improvements; Northwest Booster Stations Improvements; and Planning and Design of Future Water Main Replacement Projects** City of Fort Wayne Citizens Square 200 E. Berry St., Suite 250 Fort Wayne, IN 46802
SRF Project Number:	DW 11 03 02 02
Authorized Representative:	Kumar Menon Director of Public Works and Utilities

II. PROJECT LOCATION

Fort Wayne is located in Allen County. The city proposes five projects that will be implemented at the water treatment plant, in water lines at two locations, and at three booster stations; see Figure 1.

1) The UV disinfection and reservoir improvements will take place at the Three Rivers Filtration Plant located in Wayne Township, Heirs of Captain Wells reserve in the USGS Fort Wayne West quadrangle.

2) The Riverside, Hannas and Paramount additions water main replacement projects will occur in Wayne Township in:
   a. the Fort Wayne West quadrangle, T31N, R12E, section 25;
   b. the Fort Wayne East quadrangle, T31N, R12E, sections 25 & 36; and
   c. the Fort Wayne East quadrangle, T31N, R13E, sections 30 & 31.

3) The Bluffton and Lower Huntington Road projects will occur in the Fort Wayne West quadrangle, T30N, R12E, sections 27, 28 and 34, Wayne Township.

4) The Northwest Booster Pump Station No. 1 project will occur in the Huntertown quadrangle, Washington Township, T31N, R12E, Section 15.

5) The Northwest Booster Pump Station No.2 project will occur in the Cedarville quadrangle, St. Joseph Township, T31N, R13E, Section 18.

6) The West Side Pump Station project will occur in the Fort Wayne West quadrangle, Wayne Township, T30N, R12E, Section 4.

7) The planning and design for future water main improvements is an engineering study and does not require any construction.

III. PROJECT NEED AND PURPOSE

UV Disinfection, Reservoir Improvements and other treatment plant improvements (Figure 2): Fort Wayne provides potable water to over 200,000 people. All of the 75 million gallons per day (MGD) of potable water is supplied by the St. Joseph River and is treated at the Three Rivers Filtration Plant, constructed in 1930 and expanded in the 1950s and 1980s.

The Indiana Department of Environmental Management (IDEM) has adopted the Long Term 2 Enhanced Surface Water Treatment Rule which requires additional treatment of Cryptosporidium by April 2012. The city evaluated alternatives and determined that UV disinfection is the best technology to meet the new regulation. The city will install the new disinfection equipment in the east pump room, along with associated mechanical and electrical equipment and controls.

The city needs to make improvements to the 14 million gallon (MG) north reservoir, 16 MG south reservoir, and the piping and valves to improve the reliability and extend the useful life of the existing reservoirs, as well as support a future west reservoir. The city will install (1) approximately 1,200 feet of 60-inch diameter pipe to convey finished water around the existing finished water reservoirs, (2) three reinforced concrete gate structures to connect piping from the new UV disinfection system and filter facilities to the new 60-inch piping, (3) a new West Gatehouse structure to connect flow to and from the south reservoir, north reservoir, and the future west reservoir; (4) curtain baffling in the north and south reservoirs to improve water quality through the reservoirs and prevent short circuiting; (5) the city will also rehabilitate the East Gatehouse.

The city will also install a new 24-inch diameter magnetic flow meter in the Superior Street meter vault, just south of the East Pump Room at the filtration plant site. The meter is an old style and has gone beyond its useful life. The new flow meter will improve the flow measurement accuracy over a wide range of flows.

The city will also install new ductile iron piping and associated valves to extend the buried high service discharge loop piping system in the area of the new concrete gate structures. This piping must be installed prior to dismantling the high service discharge piping in the East Pump Room to allow installation of the new UV disinfection system.

The city will also install a new 16 MGD high service pump with associated drive equipment in the North Pump Station to complement the existing four pumps. The addition will provide sufficient firm pumping capacity when the North Reservoir, West Pump Station and East Pump Station are out of service during the construction period.

The city will also install a new 250 kw generator at the plant site to complement the two existing 2,000 kw generators. The third generator will provide electrical back-up power for the UV disinfection system in case of power outage.

The "No Action" alternative for the UV disinfection was rejected by the city, since the city would be out of compliance with the Long Term 2 Enhanced Surface Water Treatment Rule. The "no-action" alternative for the reservoir improvements would not allow the city operational flexibility, or provide for long term use of the reservoirs. The "no-action" alternative was rejected for the other improvements at the Three Rivers Filtration Plant, since the operational efficiencies and needs would not be met.

Water Main Replacements: There are approximately 1,160 miles of distribution water main in the city's water service area. The Bluffton Road, Lower Huntington Road, Hannas, Riverside and Paramount Additions are areas with old cast iron or ductile iron water mains; main breaks have been a problem in those areas. The city proposes to replace approximately 24,450 feet of 4-, 6- and 8-inch diameter pipes with 8-inch high density polyethylene (HDPE) pipe, using the directional drill method. The water main replacements will reduce maintenance costs, as well as reduce water and pressure losses due to water main breaks.

The "No Action" alternative would allow the water main breaks to continue and lead to increased maintenance costs and customer dissatisfaction.

West Side Pump Station Improvements: The West Side Pump Station needs upgraded instrumentation and Supervisory Control and Data Acquisition (SCADA) to operate Pumps 1-3 through the Three Rivers Filtration Plant SCADA and to reduce surge pressures in the West Side Pressure Zone distribution system. The project will also upgrade the Variable Frequency Drive (VFD) on Pump No. 2 and upgrade the controls on Pump Nos. 1 and 2, and programming modifications to the Three Rivers Filtration Plant SCADA.

The "No Action" alternative would not allow this pump station operation to be controlled from the Three Rivers Filtration Plant or reduce surge pressures in the West Side Pressure Zone.

Northwest Booster Pump Stations Improvements: The Northwest Pressure Zone system requires additional pumping capacity to meet the average day, maximum day and peak hour water quantity demands. The city proposes to replace Pump No. 4, install a new constant speed pump in the vacant Pump No. 5 location and to replace the VFD on Pump No. 3 in NW Booster Pump Station No.1. Both booster stations will be connected to the Coldwater Tank through an updated SCADA system. And in NW Booster Pump Station No. 2, the city will replace the VFD on Pump No. 3 with a higher efficiency VFD.

The "No Action" alternative for the Northwest Booster Stations was rejected, since the water quantity demands of the Northwest Pressure Zone would not be met.

Planning and Design Engineering for Future Water Main Replacement Projects: The city needs to plan and design for future water main replacement projects. There will be no construction activities associated with this work. The "no-action" alternative was rejected.

IV. ESTIMATED PROJECT COST AND FUNDING

Selected Plan Estimated Cost Summary

Construction Components	Costs
1. UV Disinfection and Reservoir Improvements	$17,770,000
2. Water Main Replacement Projects	2,088,450
3. Northwest Pump Stations Improvements	375,100
4. West Side Pump Station Improvements	227,000
Subtotal Estimated Construction Cost	**$20,460,550**
Contingencies	2,045,550
Total Estimated Construction Cost	**$22,506,100**
Non-Construction Costs **	**$4,181,400**
Total Project Costs	**$26,687,500**

**includes legal, accounting, construction engineering and construction observation and planning/design engineering fees for the future water main replacement projects.

The city will borrow approximately $24,000,000 through a 20-year loan from the State Revolving Fund (SRF) Loan Program at an interest rate to be determined at loan closing. The city will use local funds to fund the difference between the estimated project cost and the SRF loan amount.

V. ENVIRONMENTAL IMPACTS OF THE FEASIBLE ALTERNATIVES

The proposed water main replacement projects will be constructed using the directional drill construction method under existing streets. The projects at the Three Rivers Filtration Plant will be conducted either in existing buildings/structures or on previously disturbed ground. The booster pump station projects will occur in existing pump station structures.

The projects will not adversely affect surface waters, wetlands, wooded areas, prime farmland, a 100-year floodplain or endangered species.

The Three Rivers Filtration Plant is listed as an Outstanding Site in the Fort Wayne Interim Report, Indiana Historic Sites & Structures Inventory. However, these projects will not affect that building.

There is one outstanding site and one notable site identified in the area of the Riverside, Hannas and Paramount additions water main replacement projects. All water main replacement will be

conducted using the directional drill construction method, ensuring minimal disruption of pavement; a 2 ft. by 2 ft. hole will need to be excavated in the street to hook the property service connection to the water main. Construction and operation of the projects will not alter, demolish or remove historic properties. If any visual or audible impacts to historic sites occur, they will be temporary and will not alter the characteristics that qualify such properties for inclusion in or eligibility for the National Register of Historic Places. The SRF's finding pursuant to Section 106 of the Historic Preservation Act is: "no historic properties affected." See figures 3 through 9

VI. PUBLIC PARTICIPATION

A properly noticed public hearing was held to discuss the projects on April 27, 2011 at 10:00 a.m. at the City County Building to discuss the water utility improvements. The city did not receive written comments in the 5-day period following the hearing.

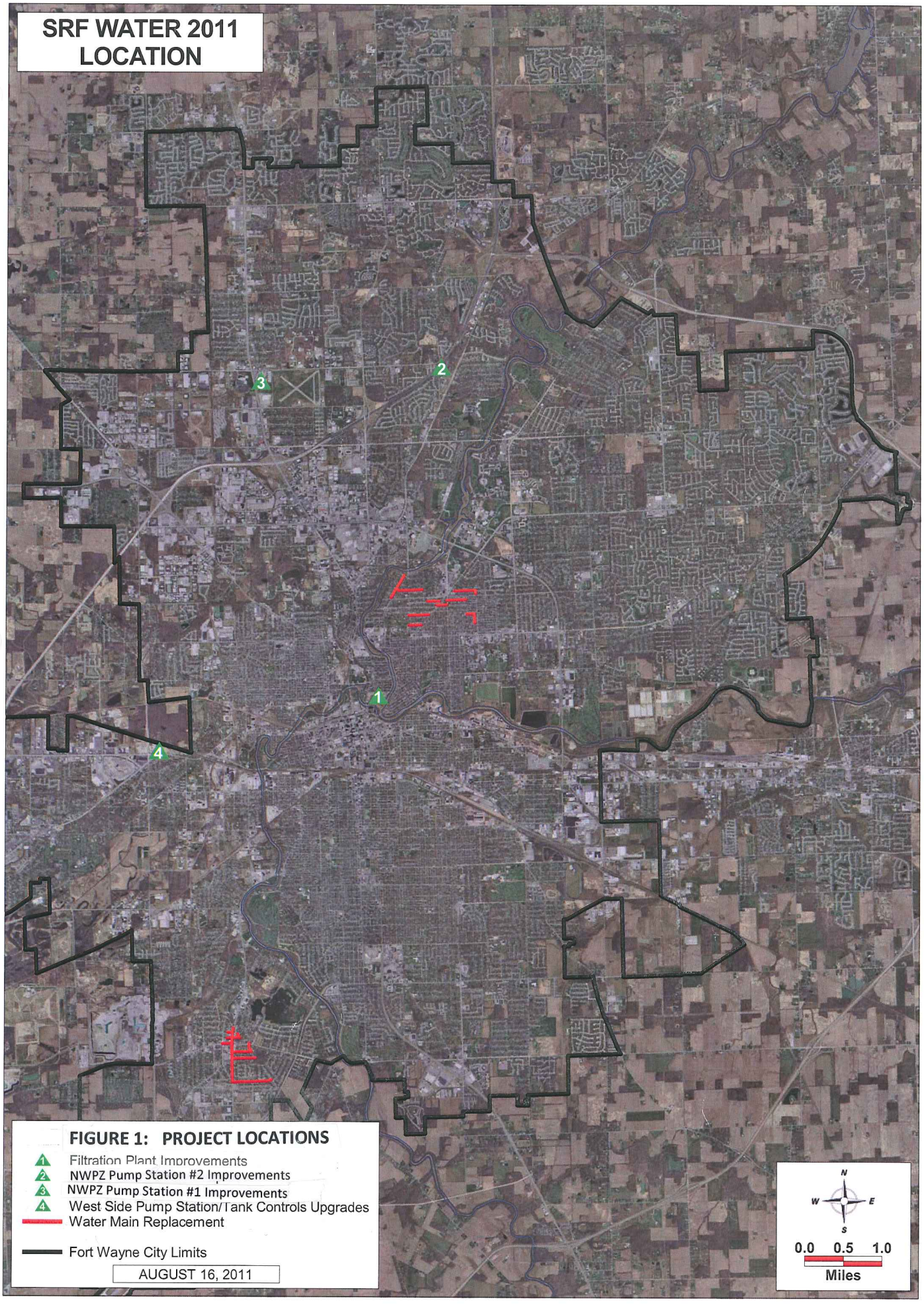
SRF WATER 2011
LOCATION
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FIGURE 1: PROJECT LOCATIONS
1 Filtration Plant Improvements
2 NWPZ Pump Station #2 Improvements
3 NWPZ Pump Station #1 Improvements
4 West Side Pump Station/Tank Controls Upgrades
Water Main Replacement
Fort Wayne City Limits
AUGUST 16, 2011
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THREE RIVERS FILTRATION PLANT PROJECTS

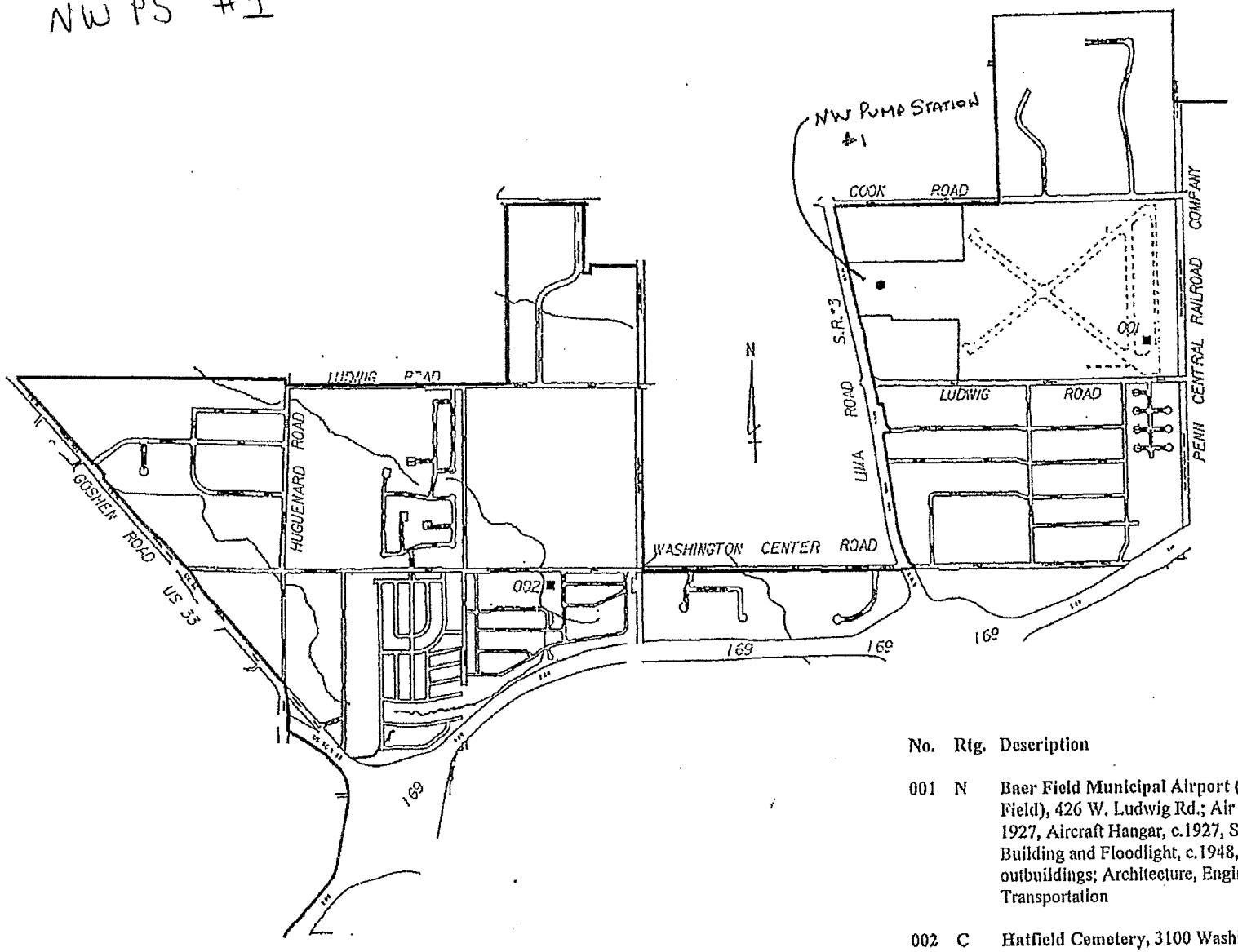
FIGURE 2

3 RIVERS TREATMENT PLANT PROJECTS

AUGUST 16, 2011

Sector 01 (003-286-01001/01002)

NW PS #1

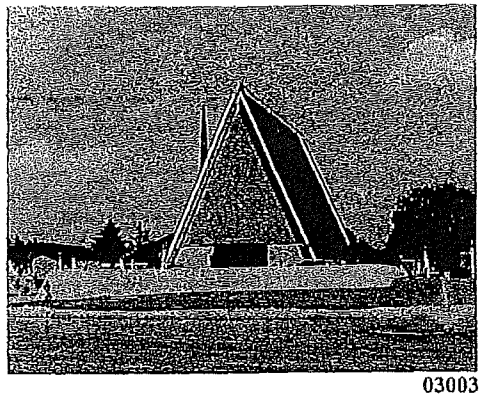


No.	Rtg.	Description
001	N	Baer Field Municipal Airport (Smith Field), 426 W. Ludwig Rd.; Air Field, 1927, Aircraft Hangar, c.1927, Service Building and Floodlight, c.1948, outbuildings; Architecture, Engineering, Transportation
002	C	Hatfield Cemetery, 3100 Washington Center Rd.; c.1851-present; Exploration/settlement

FIGURE 3, Northwest Pump Station #1: from Fort Wayne Interim Report Indiana Historic Sites and Structures Inventory

Sector 03 (003-286/104-03001/03007) NW PS #2

No.	Rtg.	Description
001	N	Lang House, 515 E. Washington Center Rd.; Colonial Revival, c.1936; Architecture (286)
002	N	House, 525 E. Washington Center Rd.; Tudor Revival, c.1936; Architecture (286)
003	N	Concordia Senior College Chapel, 6600 N. Clinton St.; Modern, 1957 (Eero Saarinen & Associates, architect; Dan Kiley, landscape architect); Architecture (104)
004	O	St. Joseph Township School-District No. 10, 6900 N. Clinton St.; Italianate/ Queen Anne/T-Plan schoolhouse, 1888; Architecture, Education, Vernacular/Construction (104)
005	C	House, 7232 Leo Rd.; American Foursquare, c.1915; Architecture, Vernacular/Construction (104)
006	C	Kroemer House, 7049 Red Haw Dr.; Colonial Revival, c.1940; Architecture (104)
007	N	House, 7115 Red Haw Dr.; Tudor Revival, c.1935; Architecture (104)



03003

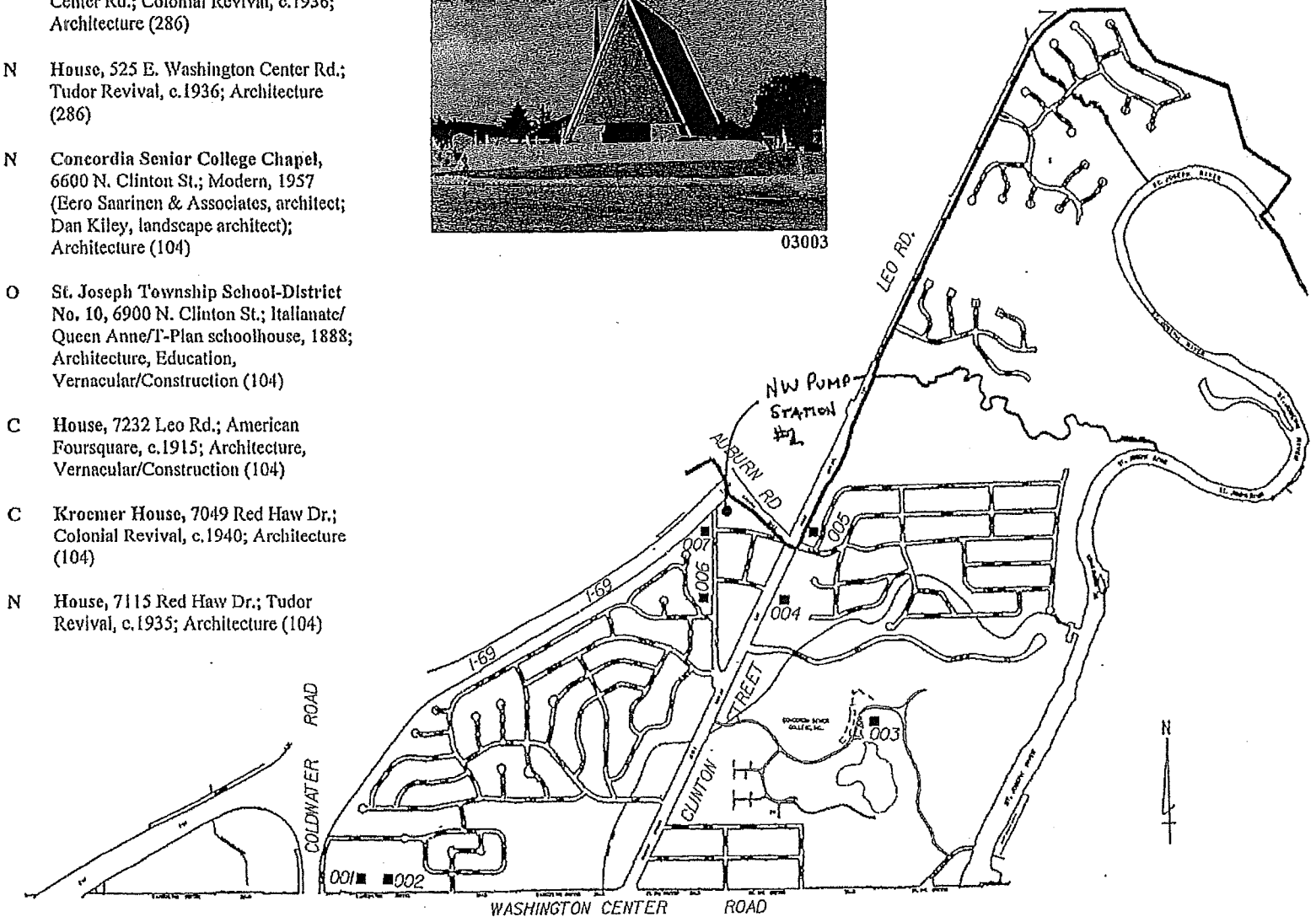


FIGURE 4, Northwest Pump Station #2: from Fort Wayne Interim Report Indiana Historic Sites and Structures Inventory

Sector 10 (003-214/215-10001/10067)

Riverside, Hannas and Paramount

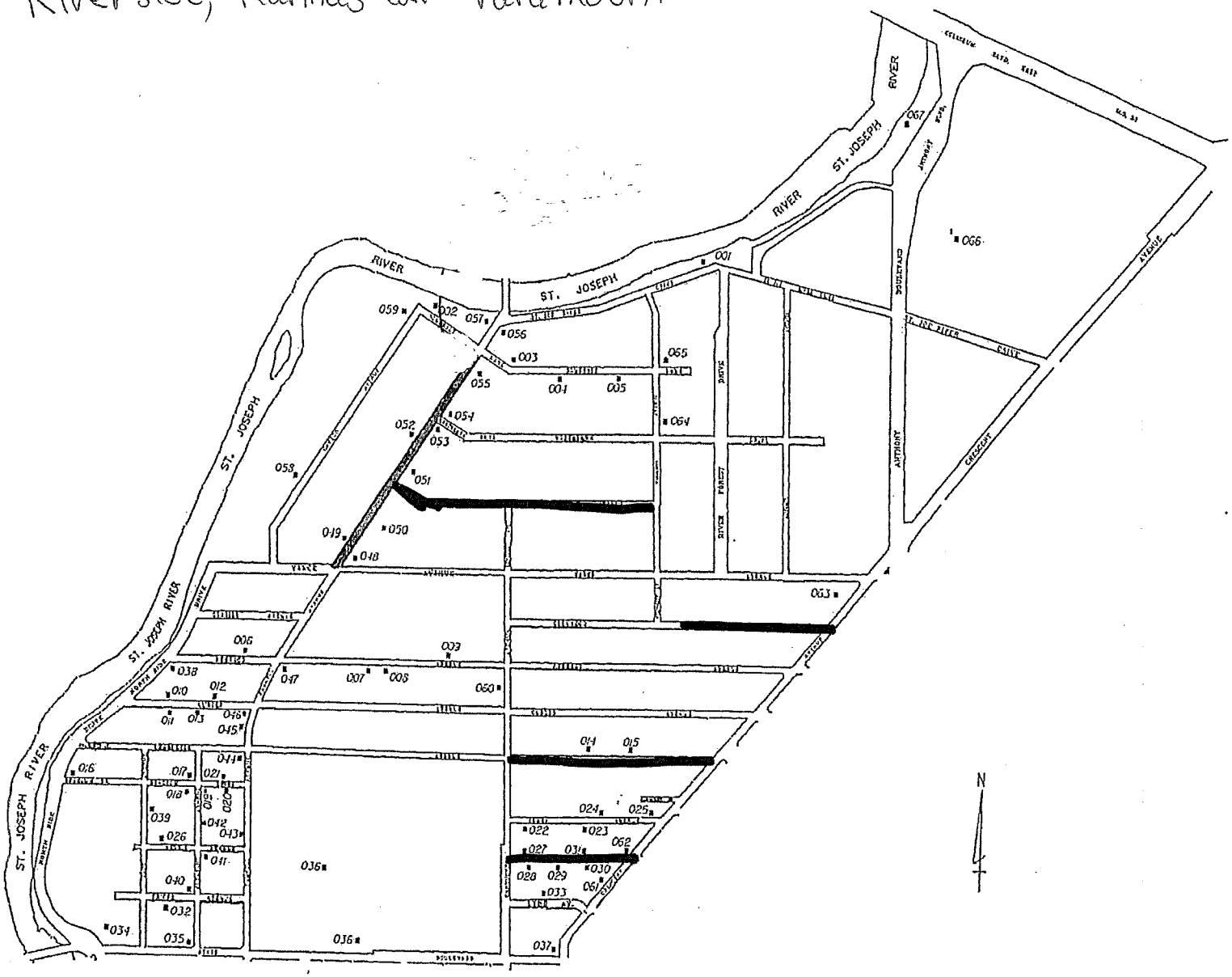


FIGURE 5a, Riverside, Hannas and Paramount Additions: from Fort Wayne Interim Report Indiana Historic Sites and Structures Inventory

Sector 11 (003-214-11001/11131)

Riverside, Hannas & Paramount

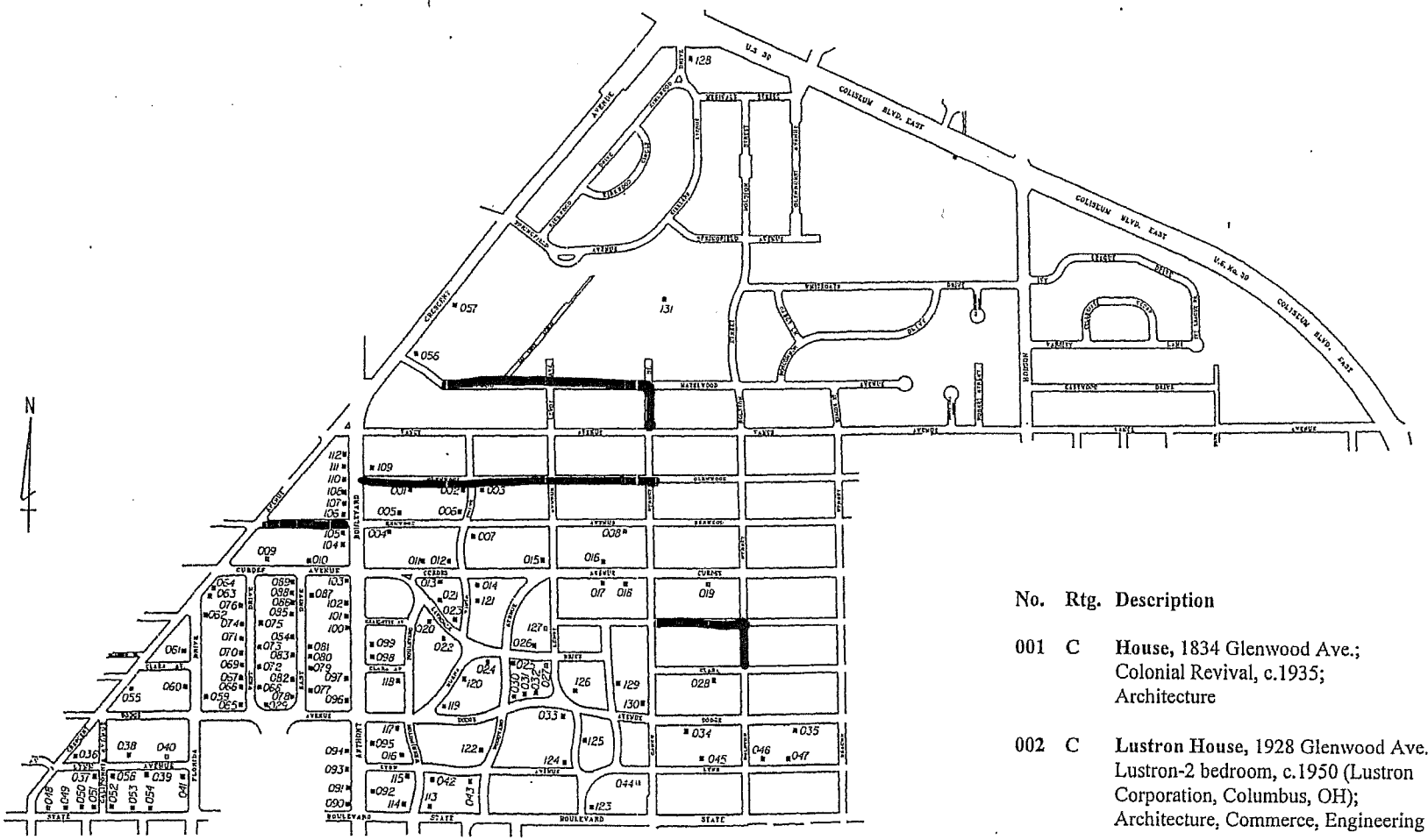


FIGURE 5b, Riverside, Hannas and Paramount Additions: from Fort Wayne Interim Report Indiana Historic Sites and Structures Inventory

No.	Rtg.	Description
001	C	**House,** 1834 Glenwood Ave.; Colonial Revival, c.1935; Architecture
002	C	**Lustron House,** 1928 Glenwood Ave.; Lustron-2 bedroom, c.1950 (Lustron Corporation, Columbus, OH); Architecture, Commerce, Engineering
03	C	**House,** 2004 Glenwood Ave.; Tudor Revival Cottage, c.1930; Architecture
004	N	**House,** 1828 Kenwood Ave.; Tudor Revival, c.1930; Architecture
005	N	**House,** 1839 Kenwood Ave.; Tudor Revival, c.1930; Architecture

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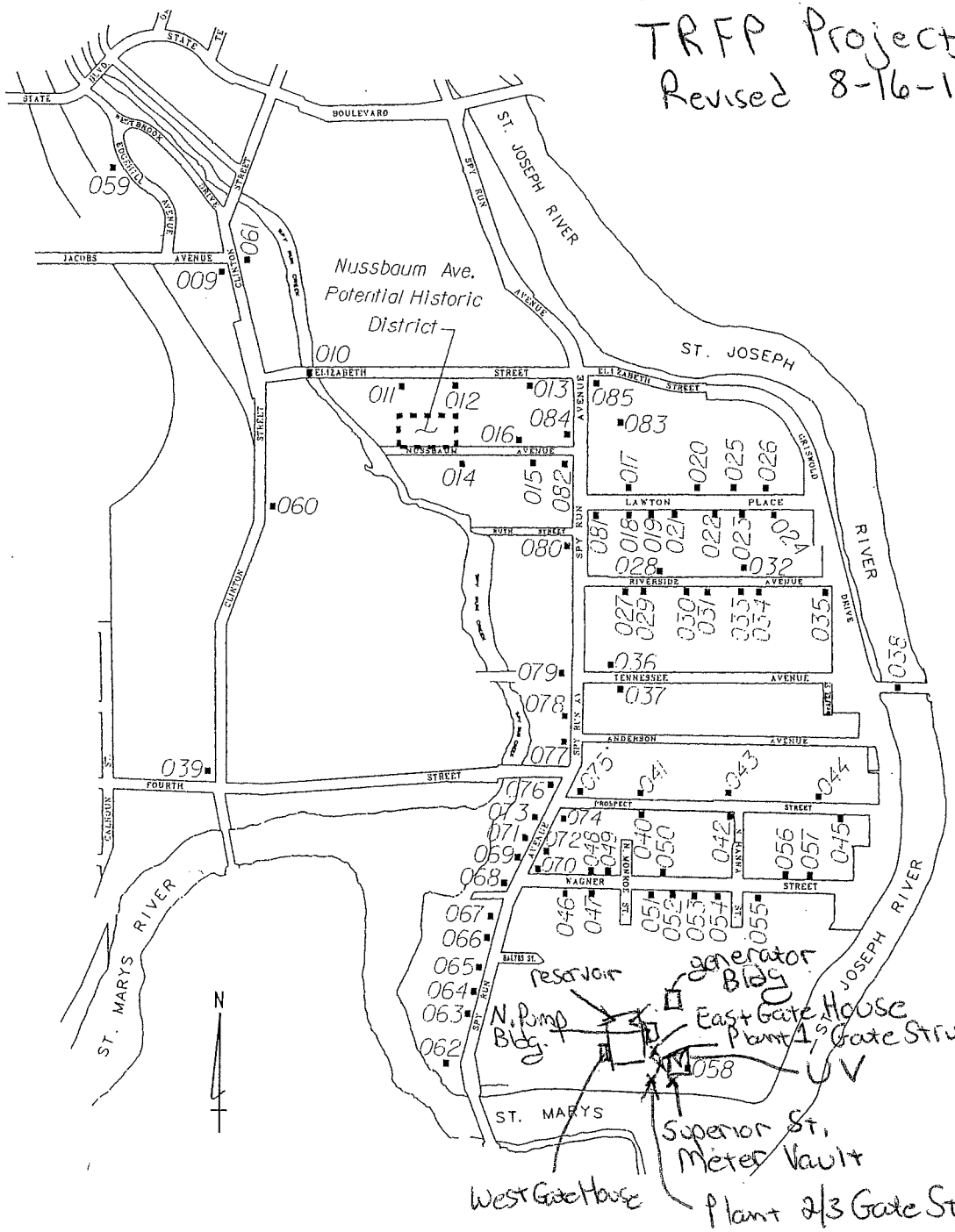
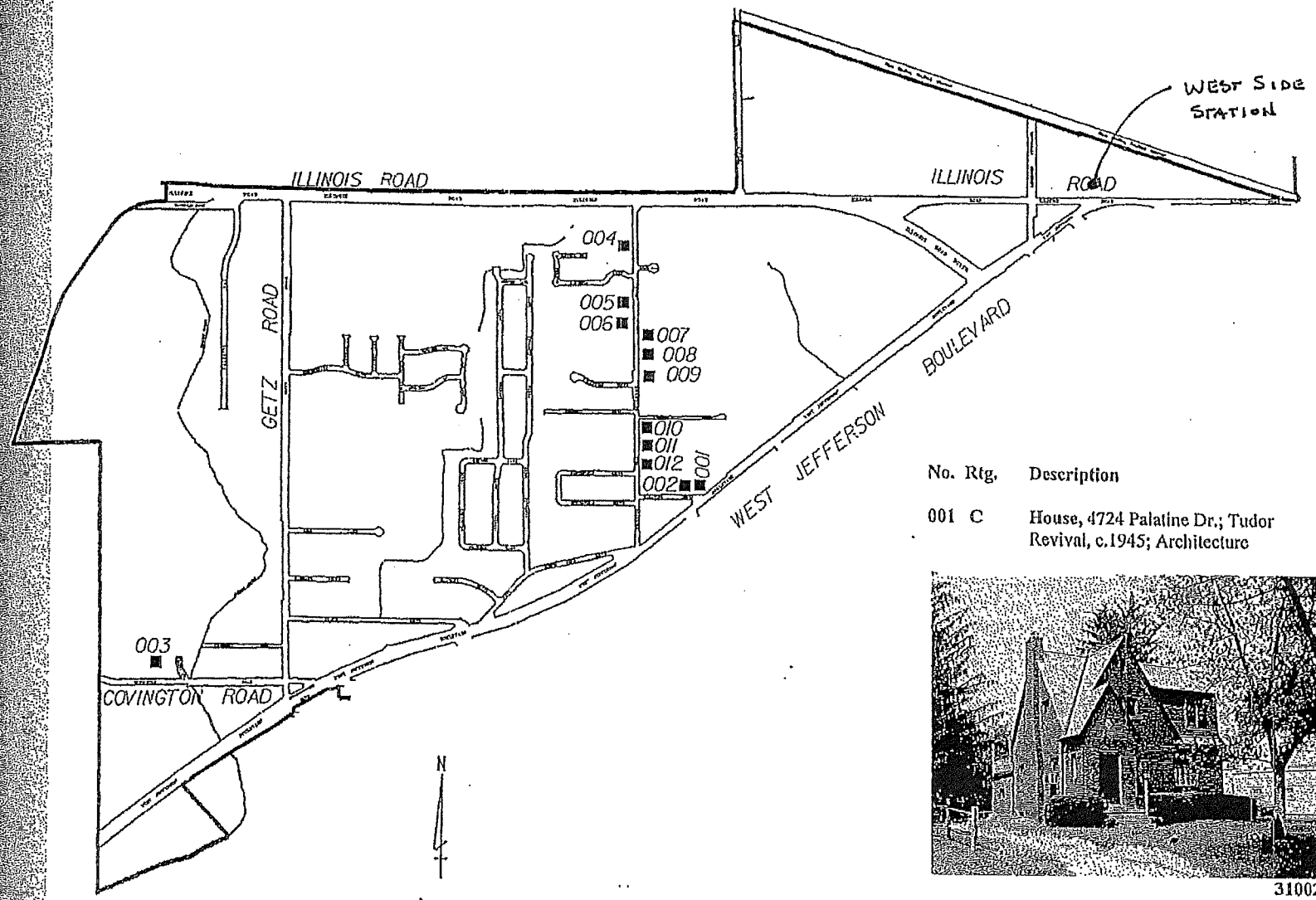
Se 'or 16 (003-215-16009/16085)



No.	Rtg.	Description
009	C	**Home Telephone & Telegraph Co.-Office, Warehouse, and Garage,** 140 Jacobs Ave.(a.k.a. 2101-2107 N. Clinton); Craftsman, 1927; Architecture, Commerce, Communications
010	N	**Elizabeth Street Bridge,** Elizabeth St. at Spy Run Creek; Pratt pony truss, c.1895; Engineering, Transportation **(Demolished)**
011	N	**House,** 404 Elizabeth St.; Greek Revival, c.1865; Architecture
012	C	**House,** 414 Elizabeth St.; Greek Revival, c.1865; Architecture
013	C	**House,** 462 Elizabeth St.; Queen Anne/Gabled Ell cottage, c.1890; Architecture, Vernacular/Construction
014	C	**House,** 416 Nussbaum Ave.; Gabled Ell, c.1900; Vernacular/Construction
015	O	**Wells House,** 450 Nussbaum Ave.; One-and-a-half New England cottage/Saltbox, c.1860; Vernacular/Construction
016	C	**House,** 453 Nussbaum Ave.; Cross Gable/Colonial Revival, c.1900; Architecture, Vernacular/Construction
017	C	**House,** 521 Lawton Place; Queen Anne/Shingle Style, c.1905; Architecture
018	N	**House,** 604 Lawton Place; Gabled Ell cottage/Queen Anne, c.1890; Architecture, Vernacular/Construction
019	C	**House,** 620 Lawton Place; Dutch Colonial Revival, c.1915; Architecture

FIGURE 6, Three Rivers Filtration Plant Projects: from Fort Wayne Interim Report Indiana Historic Sites and Structures Inventory

Sector 31 (003-215-31001/31012)



No.	Rtg.	Description
001	C	House, 4724 Palatine Dr.; Tudor Revival, c.1945; Architecture

31002

002	C	House, 4728 Palatine Dr.; Tudor Revival, c.1935; Architecture

FIGURE 7, West Side Pump Station: from Fort Wayne Interim Report Indiana Historic Sites and Structures Inventory

Sector 55 (003-215-55001/55004)

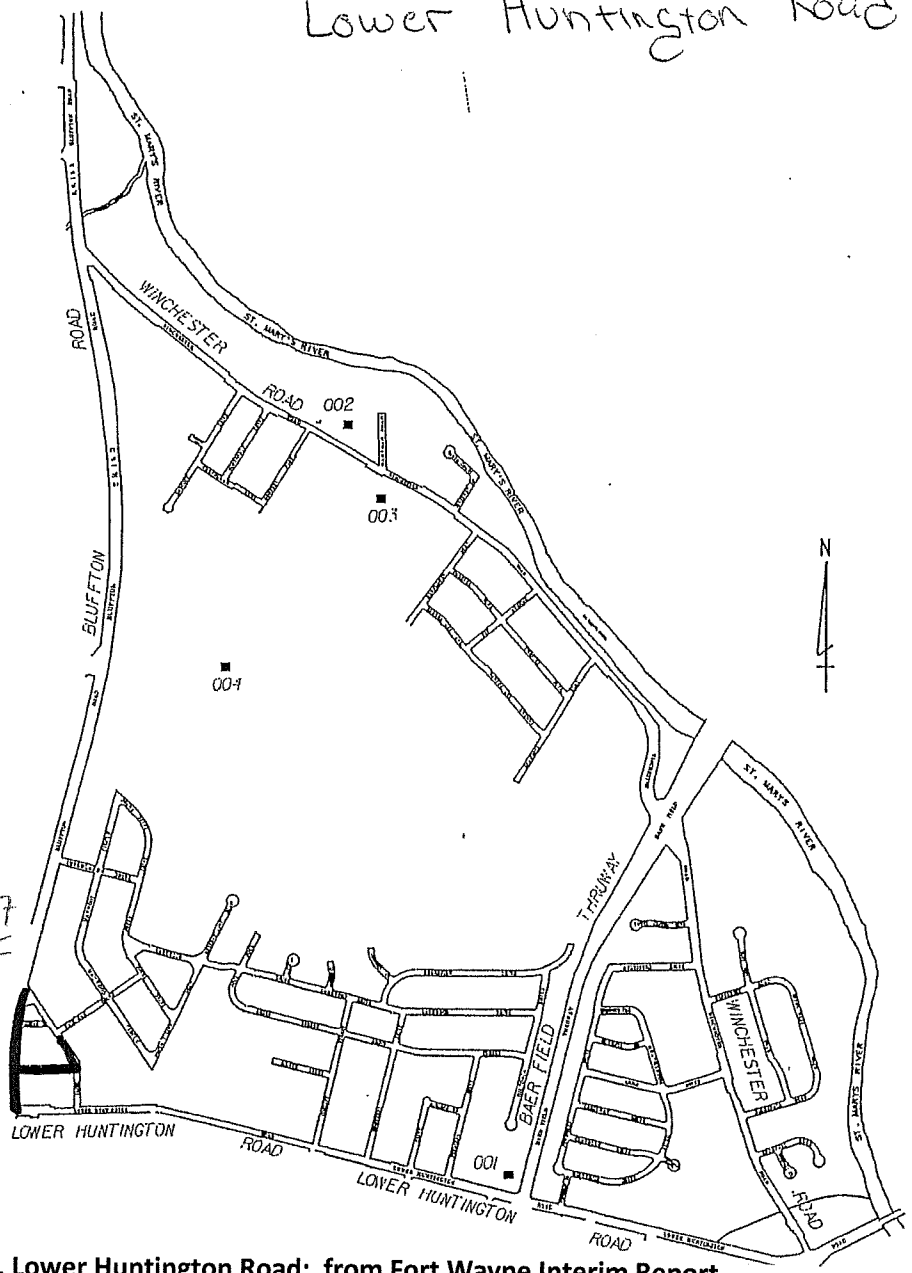
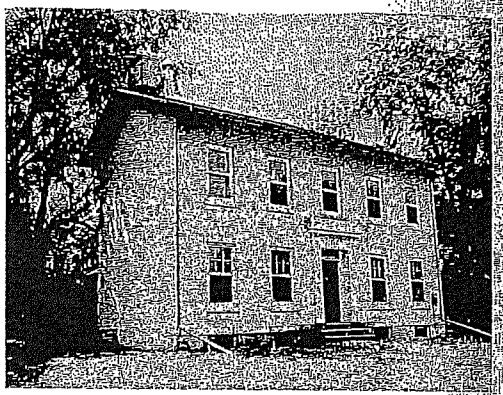


FIGURE 8a, Lower Huntington Road: from Fort Wayne Interim Report Indiana Historic Sites and Structures Inventory

No.	Rtg.	Description
001	C	**House,** 1202 Lower Huntington Rd.; Craftsman, c.1920; Architecture
002	C	**House,** 5239 Winchester Rd.; Craftsman/American Foursquare, c.1918; Architecture
003	C	**House,** 5332 Winchester Rd.; American Foursquare, c.1920; Architecture

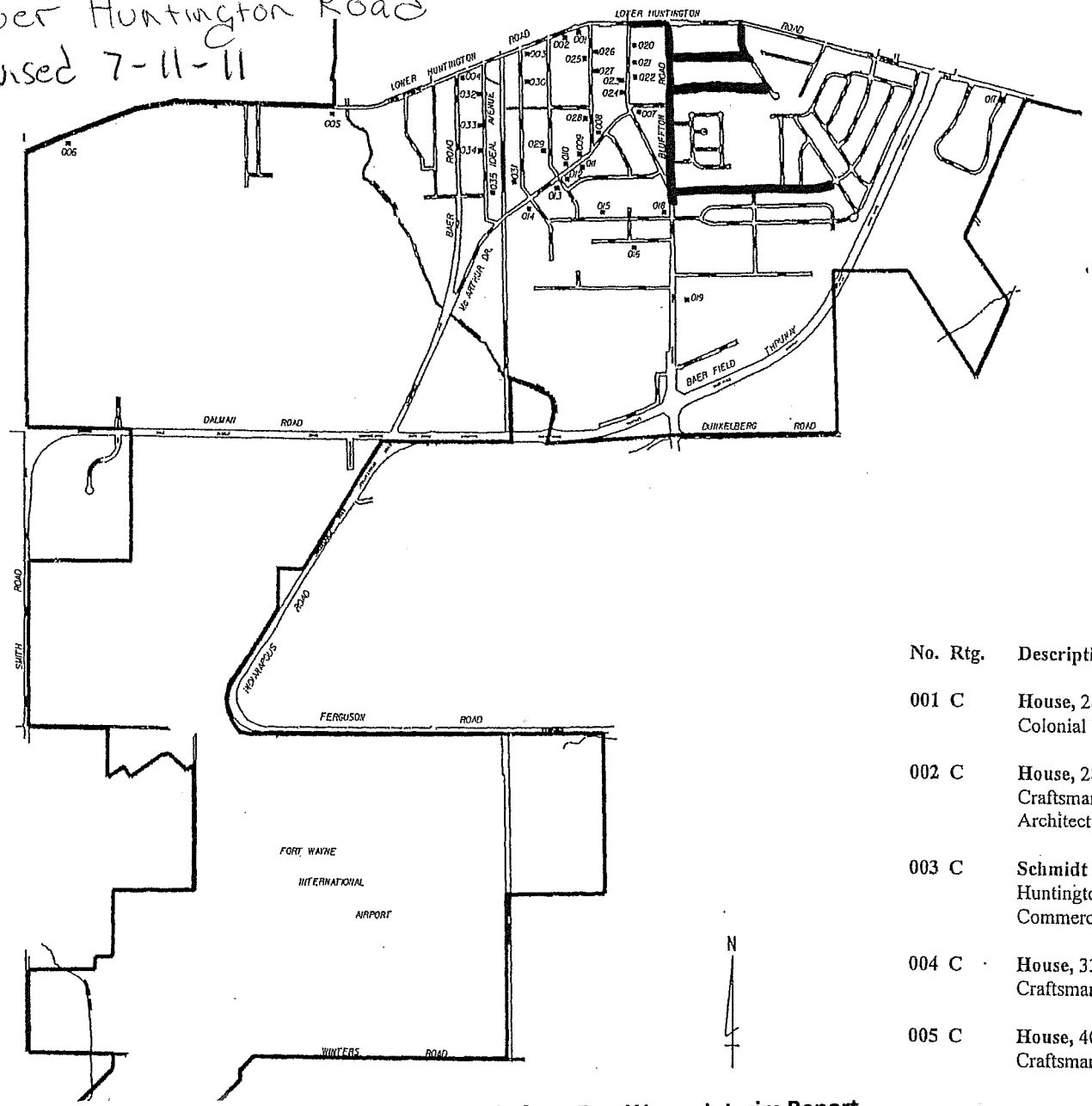


55004

004	O	**Miami Chief Jean Baptiste de Richardville House,** 5705 Bluffton Rd.; Greek Revival/I-House, 1827; Architecture, Commerce, Indian, Vernacular/Construction **LHD**

Sector 58 (003-215-58001/58035)

Lower Huntington Road
Revised 7-11-11



No.	Rtg.	Description
001	C	**House,** 2815 Lower Huntington Rd.; Colonial Revival, c.1925; Architecture
002	C	**House,** 2817 Lower Huntington Rd.; Craftsman Bungalow, c.1920; Architecture
003	C	**Schmidt Building,** 3025 Lower Huntington Rd.; Functional, 1946; Commerce/Vernacular Construction
004	C	**House,** 3325 Lower Huntington Rd.; Craftsman, c.1920, Architecture
005	C	**House,** 4025 Lower Huntington Rd.; Craftsman, c.1929; Architecture

FIGURE 8b, Lower Huntington Road: from Fort Wayne Interim Report Indiana Historic Sites and Structures Inventory

Sector 54 (003-215-54001/54038)

Bluffton Road
Revised 7-11-11

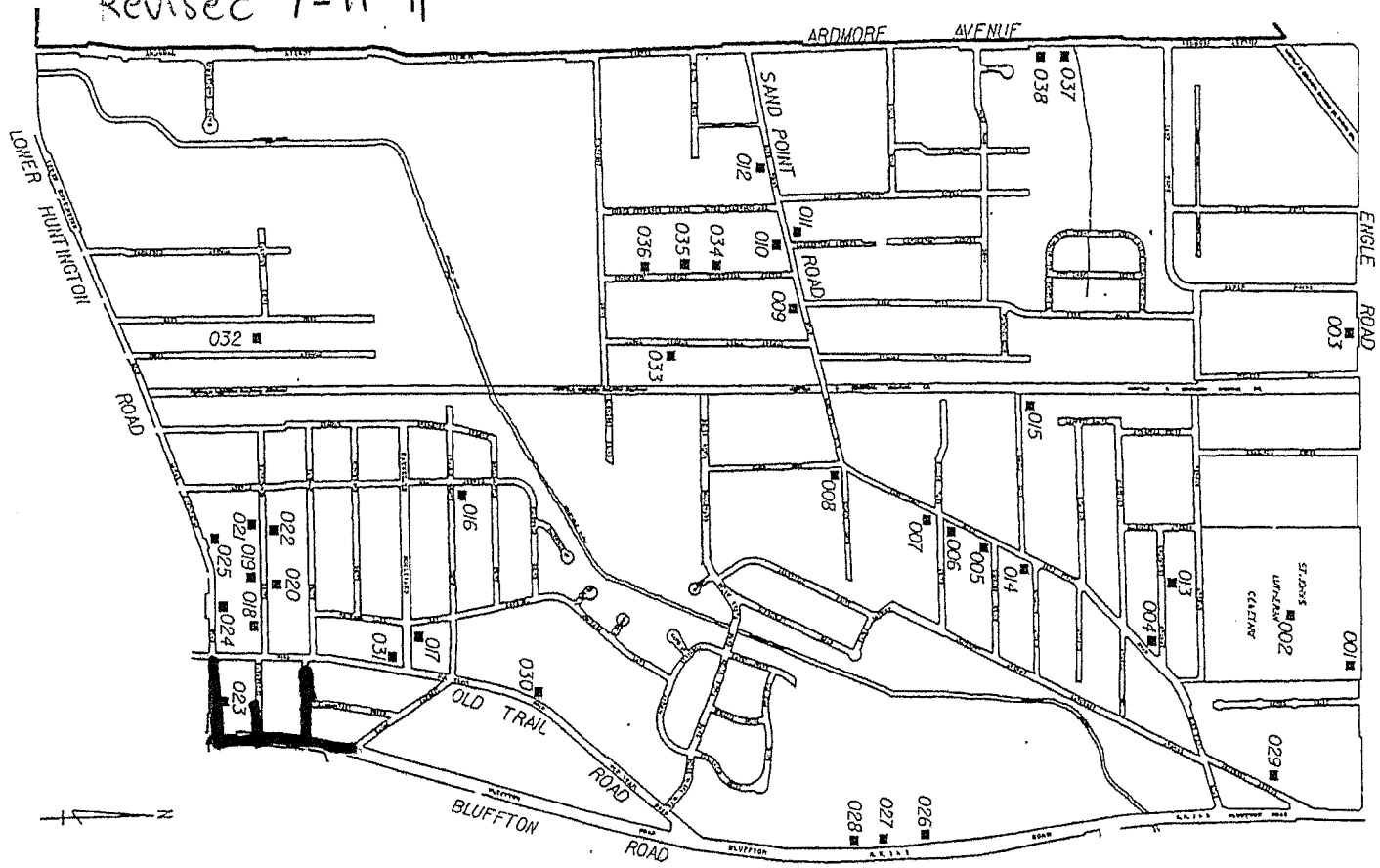


FIGURE 9, <u>Bluffton Road</u>: from Fort Wayne Interim Report Indiana Historic Sites and Structures Inventory